ABSTRACT OF THE DISCLOSURE

The invention is directed to a stent delivery method and system which generally includes an elongated delivery sheath and a catheter disposed within an outer lumen of the sheath having an expandable member on its distal extremity. An expandable stent is mounted on the expandable member of the catheter. The distal portion of the sheath tapers down and is tucked within an elastic cone during transport of the stent to a stenotic region. A manipulating device is provided on the proximal end of the delivery system to effect relative axial movement between the sheath and the catheter so as to expose the stent mounted on the expandable member on the catheter within a body lumen such as a coronary artery and allow the expansion of the stent by the expansion of the expandable member. The elastic cone thereby disengages from the sheath and collapses about the distal end of the catheter. The delivery sheath has a first port in its distal end and a second port in the sheath wall proximally disposed from the distal end of the sheath. The catheter likewise has a first port in its distal end and a second port proximally disposed from the distal end of the catheter. An inner lumen extends within the distal portion of the catheter between the first and second ports and slidably receives a guiding member such as a guidewire. This system allows the stent to be delivered over a guidewire previously advanced to the desired location within a body lumen.